

Amendments to the Claims:

1-10. (Cancelled)

11. (Currently amended) An isolated biologically active beta-secretase polypeptide selected from the group consisting of:

a) the polypeptide of SEQ ID NO: 4;

~~b) a fragment of SEQ ID NO: 4;~~

b) e) a polypeptide having one to fifty conservative amino acid changes as compared with the polypeptide of SEQ ID NO: 4, wherein said polypeptide includes the transmembrane domain; and

c) d) the polypeptide encoded by the DNA vector insert of ATCC Deposit Nos. ~~207158 and No. 207159.~~

12. (Currently amended) An isolated biologically active beta-secretase polypeptide encoded by a nucleic acid molecule selected from the group consisting of:

a) a nucleic acid molecule as set forth in SEQ ID NO:1;

b) a nucleic acid molecule encoding the polypeptide of SEQ ID NO: 4;

~~e) fragments of SEQ ID NO: 1;~~

~~d) a nucleic acid molecule of the DNA vector insert in ATCC deposit No. 207158;~~

c) e) a nucleic acid molecule of the DNA vector insert in ATCC deposit No. 207159;

and

d) f) a nucleic acid molecule ~~having~~ encoding one to fifty conservative amino acid substitutions as compared with the polypeptide of SEQ ID NO:4, wherein said polypeptide includes the transmembrane domain.

13. (Original) An isolated polypeptide having the amino acid sequence of SEQ ID NO: 4.

14. (Currently amended) An isolated polypeptide ~~fragment of SEQ ID NO:4~~ selected from the group consisting of: amino acids 45-501; amino acids 46-501; ~~amino acids 46-460; amino acids 45-460; amino acids 1-460; amino acids 93-292; amino acids 93-293; amino acids 91-295; amino acids 90-295; amino acids 90-300; amino acids 62-420; amino acids 1-420; amino acids 62-460; amino acids 90-460; amino acids 62-501; amino acids 62-460;~~

~~amino acids 46-420; amino acids 73-420; amino acids 83-420; amino acids 90-420; amino acids 62-417; amino acids 73-417; amino acids 83-417; amino acids 90-417; amino acids 62-410; amino acids 73-410; amino acids 83-410; amino acids 90-410; amino acids 62-402; amino acids 73-402; amino acids 83-402; and amino acids 90-402.~~

15-21. (Cancelled)

22. (New) The isolated biologically active beta-secretase polypeptide of claim 11, wherein the polypeptide is the polypeptide of SEQ ID NO: 4.

23. (New) The isolated biologically active beta-secretase polypeptide of claim 11, wherein the polypeptide has one to fifty conservative amino acid changes as compared with the polypeptide of SEQ ID NO: 4, wherein said polypeptide includes the transmembrane domain.

24. (New) The isolated biologically active beta-secretase polypeptide of claim 11, wherein the polypeptide is encoded by the DNA vector insert of ATCC Deposit No. 207159.

25. (New) The isolated biologically active beta-secretase polypeptide of claim 12, wherein the polypeptide is encoded by a nucleic acid molecule as set forth in SEQ ID NO:1.

26. (New) The isolated biologically active beta-secretase polypeptide of claim 12, wherein the polypeptide is encoded by a nucleic acid molecule encoding the polypeptide of SEQ ID NO: 4.

27. (New) The isolated biologically active beta-secretase polypeptide of claim 12, wherein the polypeptide is encoded by a nucleic acid molecule of the DNA vector insert in ATCC deposit No. 207159.

28. (New) The isolated biologically active beta-secretase polypeptide of claim 12, wherein the polypeptide is encoded by a nucleic acid molecule encoding one to fifty conservative amino acid substitutions as compared with the polypeptide of SEQ ID NO:4, wherein said polypeptide includes the transmembrane domain.